

REMARKS

INTRODUCTION

In accordance with the foregoing, the abstract, specification, drawings and claim 1 have been amended. Claims 1, 4 and 6-9 are pending and under consideration.

AMENDMENT TO THE ABSTRACT

The abstract has been amended to improve the form of the abstract.

OBJECTION TO THE DRAWINGS and AMENDMENT TO THE SPECIFICATION

The drawings were objected to under 37 CFR 1.83(a) for failing to show the retaining portion provided in the fixing ring or socket portion, the sensor unit being of one-piece construction, and the plurality of sensor sections.

Regarding the objection based on failing to show the retaining portion provided in the fixing ring or socket portion, Figures 1 and 2 show a retaining portion 33 for elastically retaining the sensor unit 9 mounted in the socket portion 32; and page 11, lines 19 and 20, note that "[t]he retaining portion 33 may be projected from the fixing ring 31."

Regarding the objection based on failing to show the sensor unit being of one-piece construction, please refer to any of Figures 1-6, 7A and 7B which show that, as noted in the abstract, the sensor unit 9 is of one-piece construction including a sensor section 26 for detecting a target of detection, a signal transmitting circuit 29b and a transmitting antenna 29a.

Regarding the objection based on failing to a plurality of sensor sections, appropriate correction has been made to Figure 1 to show a plurality of sensor sections as recited in claim 1. Further, the specification has been amended on page 11 to reflect the amendments to the drawings and also to be consistent with claim 1.

Withdrawal of the foregoing objections is requested.

CLAIM OBJECTIONS

Claim 1 was objected to because of an informality. Claims 4 and 6-9 were objected to due to their dependency on claim 1. Appropriate correction has been made to claim 1 to clarify that the retaining portion is provided **on** the fixing ring or the socket portion.

Withdrawal of the foregoing object is requested.

CLAIM REJECTIONS

Claims 1, 4, 6 and 7 were rejected under 35 USC 103(a) as being unpatentable over Alff (US 5,451,869) (hereinafter "Alff") in view of Morita et al. (US 2003/0093188) (hereinafter "Morita").

Claims 8 and 9 were rejected under 35 USC 103(a) as being unpatentable over Alff in view of Morita and further in view of Hori (US 5,990,676) (hereinafter "Hori").

Amended claim 1 recites: "...the sensor unit mounting device is made of a non-magnetic material and covers an end opening of the stationary outer race, and the sensor unit is arranged in face-to-face relation with the target with the sensor unit mounting device interposed therebetween." Support for these amendments to claim 1 may be found in at least specification of the present application on page 15, lines 12-14, and page 19, lines 13-15.

In contrast to claim 1, Alff discusses has a cut-out section 41 so that a bearing space between an internal bearing ring 1 and external bearing ring 2 is not sufficiently sealed.

Claim 1, as amended, provides the technical advantages that since one open end of the stationary race member is covered by the sensor unit mounting device with the sensor unit supported outside thereof, there is no need to use any sealing member, for example, an O-ring for sealing the interior of the bearing assembly at a location where the sensor unit is mounted. In other words, where the sensor unit of, for example, a cylindrical configuration is fitted to a cover member through a throughhole defined in the cover member, the use of the sealing member such as an O-ring is required in the throughhole.

Further, since the inboard opening of the stationary race member is closed by the sensor unit mounting device, it is possible to avoid ingress of foreign matter and/or muddy water into the bearing assembly and also to eliminate the use of the sealing member which has hitherto been required at the one end of the annular bearing space delimited between the rotatable and stationary race members. The elimination of the sealing member is effective to reduce the rotational resistance in the bearing assembly, eventually resulting in increase of the mileage of an engine.

Still further, when the sensor unit is arranged in face-to-face relation with the pulsar ring with the disc of the sensor unit mounting device interposed therebetween, the sensor unit mounting device is made of the non-magnetic material, there is no possibility that detection of the pulsar ring by the sensor unit is interfered with the sensor unit mounting device.

Additionally, these technical features of claim 1 are not discussed in the secondary references Morita and Hori.

Claims 4 and 6-9 depend on claim 1 and are therefore believed to be allowable for at least the foregoing reason.

Withdrawal of the foregoing rejections is requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date:

June 6, 2008

By:

Gregory W. Harper
Gregory W. Harper
Registration No. 55,248

1201 New York Avenue, N.W., 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501